

GLOSSARY

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Adsorption	Adhesion of molecules of gas, liquid, or dissolved solids to a surface.
Anaerobic	A life or process that occurs in, or is not destroyed by, the absence of oxygen.
Aeration	A process that promotes biological degradation of organic water. The process may be passive (as when waste is exposed to air) or active (as when a mixing or bubbling device introduces the air).
Agronomic Rate	The annual application rate which is based upon the total amount of nitrogen needed to grow a specific type of vegetation.
Biosolids	Solid particles that are physically separated and treated during the sanitary wastewater treatment process
Buffer zones	An area designated to separate certain features, such as streams, lakes, or roads, from impacts from sludge application. The width of buffer zones for sludge application is determined by the Tennessee Department of Environment and Conservation.
Class A	Biosolids that do not possess pathogenic organisms and meet all designated EPA standards for free release without the use of a permit
Class B	Biosolids that possess a minimal level of pathogens that are destroyed within the first few hours after application. The land application of these materials require a permit and adherence to specific site restrictions via EPA.
Demographics	Statistics relating to the dynamic balance of a population, especially with regard to density, distribution, and capacity for expansion or decline.
Desiccation	Drying out; plants or insects or microorganisms may dry out to the extent that they die.

Heavy metals	Metallic elements with high atomic weights, for example, mercury, chromium, cadmium, arsenic, and lead. They can damage living things at low concentrations and tend to accumulate in the food chain.
Herbaceous	Plants having little or no woody tissue and persisting usually for a single growing season.
Hydrogeology	The geology of groundwater, with particular emphasis on the chemistry and movement of water.
Hydrology	The science dealing with the properties, distribution, and circulation of water.
Influent	Water, wastewater, or other liquid flowing into a treatment plant.
Inorganic chemicals	Chemical substances of mineral origin, not of basically carbon structure.
Natural areas	Areas on the Oak Ridge Reservation that have been established to protect state or federally listed rare species and species under status review for federal listing that occur on the Oak Ridge Reservation. The Natural Areas consist of a core area (actual location of the plants) and a buffer area for habitat protection.
Organic chemicals	Substances containing mainly carbon, hydrogen, and oxygen.
Pathogens	Microorganisms that can cause disease in other organisms or in humans, animals, and plants. They may be bacteria, viruses, or parasites and are found in sewage.
Potable water	Water that is safe for drinking and cooking.
POTW	Publicly owned treatment works: a waste treatment works, usually owned by a unit of local government and designed to treat domestic wastewaters.

Radionuclide	Radioactive element, characterized according to its atomic mass and atomic number, that can be man-made or naturally occurring. They can have a long life as soil or water pollutants.
Reference areas	Areas on the Oak Ridge Reservation that are representative of the vegetational communities of the southern Appalachian region or that possess unique biotic features. These areas are important as sources of baseline information for long-term observations and monitoring. They are set aside for the exclusive use of nonmanipulative environmental research.
Sewage sludge	Sludge (i.e., biosolids) produced at a POTW, the disposal of which is regulated under the Clean Water Act.
Transient	Passing through or by a place with only a brief stay.
Waters of the state	Any and all waters, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.